

AN
INTRODUCTORY LECTURE
ON THE
ANATOMY, PHYSIOLOGY,
AND
DISEASES OF THE EYE,

DELIVERED AT THE BIRMINGHAM ROYAL SCHOOL OF MEDICINE AND
SURGERY, OCTOBER 4, 1839.

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TO
RICHARD MIDDLEMORE, ESQ.,
THE DAVIDS,
IN THE COUNTY OF WORCESTER;

AND
WILLIAM MIDDLEMORE, ESQ.,
EDGBASTON,
IN THE COUNTY OF WARWICK;

THIS INTRODUCTORY LECTURE IS INSCRIBED, WITH
SENTIMENTS OF RESPECT AND REGARD,

BY

THE AUTHOR.

LECTURE.

GENTLEMEN,—Several years have elapsed since I first delivered Lectures on Diseases of the Eye to medical students in this town, and I well remember how strongly I was then impressed with the importance of the duty I had undertaken. Since that period, my best attention has been given to the same subject—my greater experience has made me, I may say, better acquainted with it—but still I cannot conceal from myself the fact, that, although by the good opinion of others I occupy my present position, it is one demanding qualifications of a far higher order than any to which I can lay claim. For, what have I engaged to do? Assuming your confidence in my capacity to communicate correct opinions on a subject of vast importance to you in your future medical career, I have, in the very act of accepting my present office, engaged to furnish you with that information which shall enable you to rescue from blindness numbers of your fellow beings—to impress you with views of disease and details of treatment which are to regulate and determine an important part of your future practice. If this duty be defectively performed—if erroneous views of disease and wrong principles of treatment be promulgated—the injury I shall do you will indeed be great; for, ignorance is preferable to error, and the mind is not readily disembarassed of its early impressions. There is a certain confidence students are willing to repose in a lecturer—in the correctness of his views and opinions—in the truthfulness and fidelity of his statements—which becomes a source of immense injury

when misplaced, but which is of great benefit when really deserved. I ask, indeed I expect this confidence, but not in the degree in which it is often so promptly and generously accorded; for, without it, in some measure, I cannot lecture to you with any degree of satisfaction to myself or with much prospect of advantage to you.

Gentlemen, — Had I been an Oculist, or (to adopt a more pliant term) a Surgeon-Oculist, entirely confining my attention to the treatment of the maladies affecting the organ of vision, I am sure I should not have been requested to deliver the course of Lectures on Ophthalmic Surgery at this school, for, it is obvious, that however accurately I might have described many of the symptoms and the various *external characters* of disease, the treatment it would have been possible for me to suggest for their relief must, of necessity, have been based on narrow and erroneous principles. Perhaps, indeed, it is not going too far to assert, that he who limits his practice to the management of diseases of the eye, soon becomes incompetent to treat any of them but those of the slightest consequence. The practice of the mere Oculist has a tendency to separate the pathology of the eye from that of the system, to detach it from its natural associations, to invest it with a character of isolation, and, in this way, such practitioners, whatever they may have been at the outset of their career, gradually and almost imperceptibly acquire, and are guided by, rules of treatment and views of management, at once contracted, erroneous, and unphilosophical. In order to study diseases of the eye and their treatment in a right method, — in a method calculated to assist you in truly obtaining a full acquaintance with them and with their proper management, the pathology of the whole system must be laid under contribution; — the general principles of therapeutics must also be borne in mind. In the words of a distinguished

writer, "the whole field of medicine and surgery must be laid under contribution for the principles which are to guide us in learning the nature and treatment of ophthalmic disease."* If such be the case, what, you may inquire, is the object of that arrangement by which a separate course of lectures on the Diseases of the Eye is delivered at this school? I will endeavour to answer this question. In the first place, the division of great labour is at all times advantageous, and this is especially the case in regard to provincial medical instruction. The limited time which lecturers generally can devote to the arrangement of their views and opinions,—to the acquisition of information in a sufficiently precise and exact form for oral communication,—and to the minute description of the symptoms of disease,—render it almost impossible for any practitioner to lecture on a variety of subjects, requiring, for their due elucidation, great practical as well as other knowledge, with justice to himself and his hearers. I am sure you will come to this conclusion when you reflect on the time required to gain the necessary practical information,—to methodise this information,—to give to it a proper degree of exactitude and completeness,—and to communicate it with effect and precision. In the second place, it has been considered that I have paid a good deal of attention to diseases of the eye, and have been favoured with far more extensive opportunities of studying them than usually fall to the share of surgeons. However, I have no object of my own to serve, and, if an attention to these Lectures on Diseases of the Eye should appear to occupy too much of your time—if my arrangement of ophthalmic maladies should appear to be needlessly extended, and my description of symptoms

* *A Treatise on the Diseases of the Eye*, by W. LAWRENCE. London, 1833. Page 7.

unnecessarily minute, I shall, at the slightest hint, properly communicated, at once retire from my post. I must have space for the consideration of a class of maladies which I consider of vast consequence to the surgical student, and if this be denied me, I have, I repeat, no alternative but to retire, for I am not blessed with the art of condensing my observations on this extensive and important subject in one or two lectures of an hour's duration, and am naturally unwilling to adopt a practice which every conviction of my judgment tells me would be, in its results, to disgrace myself and to deceive you.

It may be doubted whether the affections of the eye afford matter for a separate course of lectures. In Germany, where diseases of the eye are far more attentively studied, and better and more extensively known than in this country, no doubt whatever is entertained on this point. "The extent of the subject," says Mr. LAWRENCE, "may be estimated from the circumstance that Professor BEER, of Vienna, occupied, in his course of instruction, ten months, giving five or six lectures weekly."*

But, Gentlemen, whatever may be my anxiety to assist your studies, unless you are thoroughly determined to apply to the subject with great zeal and diligence, unless you are prepared to renounce many of the prevailing customs of society (which so greatly tend to embarrass genius and encourage presuming ignorance), it will be wholly without effect. I call upon you then, at the outset, to be prepared to practice much of self-denial; to renounce many profitless pleasures and trifling amusements; and to consecrate yourselves to the service in which you have embarked with the most entire devotedness.

But let me not deceive you—I am supposing that in

* *Opus citatum.* Page 5.

engaging in the study of our interesting profession you are not actuated solely, nor indeed chiefly, by the motives which govern the strictly commercial part of the community in the exercise of their worldly calling, but by those elevated aspirations after usefulness, which have manifestly guided the conduct of many departed lights of medical science. It is delightful to dwell upon this subject—to record, even in this general manner, the services of men who have voluntarily renounced much of the emoluments of practice—the splendour of a fashionable position, with its much-courted but temporary honours, and its seducing but ephemeral respect—in order that they might possess themselves of that time which was necessary to enable them to record the results of their experience for the advantage of succeeding generations. It is, I say, delightful to dwell on such a subject, for it constitutes one of the brightest and holiest pages in the history of human conduct.

I have thus endeavoured to explain the grounds on which it has been considered advisable to establish, at this school, a Professorship of Ophthalmic Surgery; and it remains for me to endeavour, by my attention to the duties of my office, to justify that choice which has caused my appearance in this theatre to day.

Gentlemen,—The inflammatory diseases of the eye alone are exceedingly numerous; and I need scarcely tell you that, viewed in relation to their consequences, many of them are exceedingly important—more important indeed than are the frequent results of inflammation of other parts, whose functions are, nevertheless, essential to the persistence of life. For example, inflammation of the attached and loose portions of the pericardium may take place, and, through the medium of effused lymph, produce their agglutination, without, as a necessary consequence, impairing, in any but the slightest possible degree, the function of the vital organ that membrane

envelopes and contains ; but if the same thing occurs in many of the textures of the eye—for example, in the anterior hemisphere of the capsule of the lens—if inflammation of that delicate membrane take place, and give rise to opaque deposition, which eventually constitutes a medium of adhesion between it and the neighbouring membrane (the iris), which naturally floats in the aqueous humour, the function of the organ is, of necessity, much impaired and very often wholly destroyed.

It has always appeared to me, that the study of diseases of the eye is peculiarly interesting ; for, in consequence of the superficial situation of some of its textures, and the transparency of others, we have an opportunity of rendering many of its maladies objects of visual scrutiny—of, in fact, actually witnessing and distinctly seeing the morbid process. If any of the external textures of the eye, or any of those parts which may be seen through its transparent media, are diseased, we have an extremely favourable opportunity of discriminating, without the risk of error, the form and nature of such disease, of distinguishing its seat, and of determining the character and the qualities of its effects, by the aid of vision—by actually witnessing, not only its precise pathological state, but of observing the product of such morbid condition. I repeat, therefore, that, as far as this circumstance is concerned, it communicates an interest to the study of diseases of the eye which is not associated with the minute investigation of disease when situated in many other parts. But again, there are other diseases of the eye, and, indeed, some of its most important maladies, which cannot be so distinguished, in the investigation of which, indeed, a mere inspection of the diseased organ affords scarcely any useful information ; for they are not distinctly indicated by any outward and visible signs of morbid action, but, on the contrary, are very obscurely manifested by their various

symptoms on cursory examination and inquiry ; and, at the same time, are rapidly destructive in their progress ; yet, unless most promptly detected, they are exceedingly prone to obtain that degree of establishment which no applications — no method of treatment whatever — will beneficially influence.

The inflammatory affections of the conjunctiva are not generally of so much importance as are those of the deeper-seated textures, and the medical management they require is also of a much more simple character, and yet, in right of the conspicuousness of one of their chiefest symptoms (redness), they usually receive a much greater degree of attention, and far more accurate treatment. For instance : it has many times fallen to my lot to be consulted by persons suffering from chronic inflammation of the retina, which has proceeded so far as almost entirely to destroy vision. They tell me that the eyes were not much reddened or painful in the first instance, they watered and were somewhat intolerant of light ; that, after a time, the sight became dim, and the intolerance of light diminished ; that they then had recourse to spectacles, which scarcely at all improved vision, and that now they possess hardly any useful degree of sight. In other instances they inform me, that the medical gentleman they consulted, examined the eyes very slightly, and told them that their sight was getting weaker and that they required spectacles, which they accordingly procured, and with which they certainly did see better for a short time, which encouraged them to continue their use and to increase their power until all but total blindness ensued. Such is the history of many cases I have seen, and I ask you, what must be the feelings of that surgeon who, in connexion with an unfortunate case of this description, felt constrained by truth to say — “ This person, who is now condemned to blindness for life, consulted me when his complaint first appeared, and I

cannot deny, but that, owing to my ignorance and inattention, he is now for ever deprived of the blessing of sight." I furnish you with no fanciful or highly coloured illustration of an imaginary calamity; I tell you no more than that which I well know has frequently occurred. Here, then, is a case the nature of which no surgeon would be able to discriminate without much attention, without careful examination, and elaborate inquiry. The symptoms are neither urgent nor particularly manifest, and the defect, in the first instance, amounts merely to a trivial inconvenience; but I have told you the dreadful result of neglected or mistaken diagnosis, and of inefficient, delayed, or erroneous treatment.

There is a form of chronic inflammation of the lamellar texture of the cornea, which, without producing much pain, or occasioning much external redness, will continue until it gives rise to a serious degree of opacity. If a patient in this state consult a surgeon not pretty well acquainted with diseases of the eye, or one who examines the affected organ superficially, he will, in all probability, be directed to apply a solution of corrosive sublimate, or some other stimulating application to remove the opacity; and I need scarcely tell you that the probable consequence of this great error will be an aggravation of a most important inflammation, which will be very likely to terminate in the serious impairment or total loss of vision. A patient was brought to me from a distance last week, suffering from the most intense inflammation of the lamellar texture of the cornea I almost ever witnessed; in fact, the cornea looked like the ground glass of a reading lamp, except that it was much more opaque. In this case, the skin of the face, and especially of the eye-lids, was extensively stained with the nitrate of silver; a strong solution of which constituted the chief part of the treatment of this terrific disease.

I might continue this series of illustrations of the necessity,

on the part of the medical student, of paying great attention to diseases of the eye, but I hope those already given will sufficiently exhibit this important fact — a fact recommended to your attention, not merely by every view of interest and every motive of policy, but by the powerful call of humanity and the energetic appeal of conscience. And here I may inquire, is it right that a class of diseases so numerous, so important, so capable of illustrating general pathology, so intimately connected with various morbid conditions of the system, and, moreover, so calamitous in result, as are those of the eye, — is it right, I ask, that the study and management of this class of diseases, should be renounced by the profession and resigned to the wisdom of empirics? I am sure your convictions will at once incline you to answer in the negative, and to intimate your approval of any arrangement, by which a greater attention shall be secured to ophthalmology than that it has, as a general rule, hitherto received, at least in this country.

It will be explained to you that the organ of vision is composed of a great variety of membranes, similar, in their anatomical characters, to membranes which enter into the composition of other parts and organs of the body; of some textures (as the lens, the iris, and the cornea), which are not strictly analogous to any others with which we are acquainted, and of various secretions and humours. All these parts — these somewhat numerous and extremely different parts — are closely compacted together. Hence it happens, — that is, in right of the proximity of the membranes of the eye to each other, — hence it happens, that there is a great tendency to an extension of inflammation when it has commenced in any one of them; and, in consequence of the nature of their structure, they are liable to the same forms of inflammation, and, generally speaking, of disease, which take place in membranes of a like kind in other situations; and a know-

ledge of this analogy of structure and of disease furnishes the basis of that systematic mode of treating of the diseases of the eye which is now adopted, in contrast to that immethodical and incomplete mode of discussing the same subject employed in former times.

Now, in consequence of the number of parts entering into the composition of the eye—their varied nature and characters—the small space they occupy—their proximity to, and vascular communications with, each other,—and also the delicacy and, so to speak, minuteness of many of the visible symptoms of their respective diseases,—it requires, in order to arrive at an exact discrimination of the precise situation, the form, and the degree, of existing inflammation or other morbid affection, that these circumstances (that is, the visible symptoms of disease) be noted, in detail, by your lecturer, and described with the utmost minuteness and precision, with all the “helps and appliances” which other than verbal description can give. This is a part of my subject to which I have paid great attention,—deriving such knowledge as I possess, not from books, but obtaining my information from the opportunity and habit of closely observing disease; and I will explain to you the method I have adopted, with a view of enabling me to ascertain and delineate the visible external symptoms of those diseases with which it is my duty to endeavour to make you acquainted.

It has been my custom, at every convenient opportunity, *to watch cases from their commencement to their conclusion*;—I mean, to observe them at regular intervals two or three times a day, or more or less frequently, according to circumstances;—*to see them in all their stages*,—not only when disease has been limited to the part in which it began, but when it has extended to other textures; not merely when treatment has succeeded in accomplishing a cure, but also when, from a variety of circumstances, disorganization of

textures has taken place, and loss of vision has occurred. By this method I have endeavoured to make myself acquainted with the entire course of disease; with every probable and ascertainable association and extension of morbid action; and with every form and variety of result.

Again, in determining the visible external characters of any given form of disease, I have carefully noted them down in a great variety of cases; I have compared these appearances in a vast number of instances; and have in this manner determined, first, the more prominent and leading symptoms; and, secondly, the inferior or less conspicuous ones, and even those which are merely occasionally present.

I have taken cases at different periods, set my notes aside for a time, then compared them with a new series of cases of a like nature; and, if any material difference in result has occurred, the cause of this discrepancy has been thoroughly sifted. Having thus arrived at a definite result, it has been committed to paper; that is, my description of any given disease has been written out at length,—not merely the visible and external appearances, but all the other characters of the malady. I have then read with great attention the descriptions of others; and every point on which I have differed from any approved authority has been again investigated; and in this way I have furnished to myself the *best* opportunity of either confirming a right conclusion, or of correcting an erroneous one. In describing particular diseases, it has been my custom to select from any one case that single appearance which has been best marked, another case, not exhibiting such one symptom at all conspicuously, has furnished me with an opportunity of observing some other symptom very favourably, which was scarcely to be noticed in the previous case; and in this manner, by an aggregation of these more perfectly developed symptoms and appearances, I have been enabled to furnish the clearest

account of the distinguishing characters of the malady this course of investigation could supply. When giving, in detail, the symptoms of particular diseases, I shall still adhere to this method ; at the same time explaining to you that you will find in nearly every case you may, after a time, be called upon to attend, some one or other of the characteristic symptoms of the particular malady from which your patient may be suffering more prominently marked than the rest.

Now, many of the diseases of the eye are strictly constitutional ; such are those termed strumons, rheumatic, gouty, syphilitic,—and require for their cure the same general mode of treatment as that employed for the relief of such diseases when affecting other parts. How, then, can it be said that the mere oculist is adequate to conduct the management of diseases of the eye ? I am, however, quite willing to admit, that some very respectable individuals who have rendered service to ophthalmic science, have *avowedly* limited their *practice* to the management of diseases of the eye. It may, however, be safely asserted, that by far the best works on diseases of the eye, and beyond comparison the most useful discoveries and material improvements in this department of knowledge, have emanated from those who studied ophthalmology as a part of, and in connexion with, their profession generally ; and if you only refer to those authors of the present day who have especially distinguished themselves by their ophthalmological researches, you will not fail to collect the names of many individuals who, for general professional attainments, will command your profoundest respect and warmest admiration. I mention these facts chiefly for the purpose of proving, that a most ample and intimate knowledge of ophthalmic disease is not only compatible with the ordinary pursuits of our profession, but is also materially assisted by the attainment of that

information which none but the well-informed physician and thorough surgeon can be presumed to possess. I may, however, tell you, that an attempt has been made to insinuate that a good knowledge of diseases of the eye and a due acquaintance with the various other branches of our profession, were incompatible attainments—that the former can only be obtained at the expense of the latter; in other words, that a good ophthalmologist must necessarily be a bad surgeon.

It is true, the gentlemen who have made these statements have not mentioned the names of LAWRENCE, WARDROP, TRAVERS, SAMUEL COOPER, GUTHRIE, TYRRELL and MORGAN, with a view of substantiating them. They were doubtless unwilling (and we cannot sufficiently admire their considerate forbearance) to bring forward such unequivocal evidence of the truthfulness of their assertions; they were reluctant to trouble their readers with proof so complete as that afforded by the recorded services of these distinguished men, that their attention to diseases of the eye had prevented them from labouring with success in the other departments of surgery; and very prudently declined to state that the individuals of the present day who had most largely contributed to the improvement of ophthalmic science, had also most largely assisted to extend the boundaries of other departments of medical knowledge, and thus endeared their names to the profession, by services, the memory of which will be as imperishable as the science they adorn.

Gentlemen,—If I dwell upon this point longer than may be thought necessary, it is because I feel impressed with the conviction that no doctrine can be more pernicious—more thoroughly at variance with the establishment of a sound ophthalmology, than that which represents the propriety of confining the treatment of diseases of the eye to particular individuals, who have never practised, or who have ceased

to practise the other branches of their profession. It is to the prevalence of this false notion — this utterly absurd opinion — that ophthalmic science has made such tardy progress, and that one of the most interesting and important departments of our profession has been, in a great measure, forced into the hands of empirics. Many medical practitioners will continue to have, as indeed they always have had, at least with a section of the community, a sort of special celebrity; they will be considered to have paid more attention to one subject than another — to understand better, and to treat with greater success, one disease, or one class of diseases, than another; and, I submit, that nothing can be more unwise or unfair than to attempt to convert this opinion, on the part of the public, into a means of injury to the individuals respecting whom it may be entertained. The tendency and effect of such absurd and unjust conduct is so manifestly injurious to the interests of medical science, that I need not detain you by explaining them in detail.

I have said that, in by-gone days, the management of diseases of the eye was in a great measure confined, by popular consent, to a class of ignorant persons who styled themselves *oculists*; but although this custom was very extensively prevalent, it was by no means universal. Here, for example, is a book, published for the second time, in 1622, namely, “*A Treatise of one hundred and thirteene diseases of the eyes and eye-liddes.* By RICHARD BANISTER, Mr. in Chyrurgery, Oculist and Practitioner in Physicke.” And, as though he were unwilling to merge his general professional reputation in the mere character of an oculist, he says, in his preliminary address, “Understand, courteous reader, that my speciall breeding hath been in the general skill of chirurgery.” It is impossible to draw any other conclusion from this and similar explanations which may be found in the works of many other writers of the same period,

than this: that there existed, even at that time, a strong conviction on the minds of the more respectable and better informed members of our profession of the absurdity, not to say impossibility, of wholly separating the practice of the various departments of surgical science, and of their sense of the impropriety of seeking practice by the adoption of imposing and attractive titles. It was an honourable and salutary feeling — a feeling which by no means obscurely evinced that they ardently cherished the character and dignity of their profession, and were unwilling to sanction any conduct or custom, which had, as they conceived, the slightest tendency to lower its respectability, impair its usefulness, or impede its advancement. The works of PARÉ,* BARBETTE,† WISEMAN,‡ ETTMULLER,§ PURMANNUS,|| BIDLOO,¶ MEAD,** PLATNER,†† HEISTER,‡‡ TURNER,§§ and many other distinguished physicians and surgeons of former times, sufficiently attest that they also possessed a practical acquaintance with ophthalmic maladies, and attended to them, in their day, in common with other diseases. However, as a general rule, the treatment of diseases of the eye was in the hands of empirics, the habits and manœuvres of whom are pretty well illustrated by the conduct of the TAYLORS, many of whom were formerly in great repute. The most distinguished of these, after having cured all the curable in this country,

* *The Works of that famous Chirurgeon, AMBROSE PAREY.* Translated by T. Johnson. London, 1649.

† *Opera Omnia.* Geneva, 1683.

‡ *Several Chirurgicall Treatises.* London, 1676.

§ *Opera Omnia Theoretica et Practica.* London, 1685.

|| *Chirurgia Curiosa.* London, 1706.

¶ *Opera Omnia Anatomico-Chirurgica.* Lugd. Batav., 1715.

** *Medical Works.* London, 1762.

†† *Institutiones Chirurgiæ Rationalis.* Venet., 1747.

‡‡ *Institutiones Chirurgiæ.* Amsterdam, 1739.

§§ *The Art of Surgery.* London, 1736.

according to his own account, travelled to the continent, and there maintained a splendid equipage. It is stated, that his carriage was drawn by four horses, very gaily caparisoned, and was attended by many outriders; the pannels of the carriage were painted over with eyes, to denote his profession, and he adopted as his motto, "*Qui visum dat, vitam dat.*" BANISTER explains, in his quaint and amusing manner, the practices of the "eye empirics" who flourished in his day. He says, "in the methodicall practice and cure of blind people, by couching of cataracts, our English oeu-
lists have alwayes had an especiall care, according to arts, to couch them within doores, out of the open aire, to prevent further danger.

"Yet some of these mountebanks take their patients into open markets, and there for vaine-glories sake, make them see, hurting the patient, only to make the people wonder at their rare skill.

"Some others make scaffolds, on purpose to execute their skill vpon, as the French-men, and Irish-man did in the Strand, making a trumpet to be blowne, before they went about their work.

"But these were not long suffered to vse these lewd courses, before they were called before the company of the chirurgeons: being sharply reprooued, soone left the city, and their abusive practice."

I will not detain you by stating, in detail, the mode in which the empiricism of the present day is manifested and supported; for, in order to do so, it would be necessary to relate acts of knavery and ignorance which would excite the incredulity of this enlightened audience. Though its form, its mode of manifestation, has varied, its spirit and essence are the same—the scaffold and the trumpet are only superseded by the hand-bill and the placard.

Such are the means which, in the nineteenth century, are

employed to deceive the ignorant and impose upon the unwary; but these means alone would be insufficient to accomplish the object (except in the case of those who would appear to be remarkably willing to be so deceived) without other aid, and especially that afforded by newspaper advertisements, which, being heavily paid for, furnish, *sub rosa*, the reward for those seducing editorial notices—those brief but expressive paragraphs, in the construction of which the conductors of our newspaper press have acquired such an adroit facility.

I speak plainly, for the subject is one not admitting of doubt, and, at the same time, demanding the fullest exposure and the most emphatic condemnation. However, it may perhaps be supposed, by some mild and gentle apologists for human frailty, that the talented body of men of whom I am now speaking—so quick to appreciate the advantages of knowledge, and so prompt to diffuse the triumphs of science—to unmask imposition and hypoerisy under almost every guise—are absolutely unable to perceive the bare-faced knavery of empiricism, and to recognize its injurious influence upon the community, whose interests, in other respects, they so well understand. If you are willing to accept this apology, for what you will then term the mental blindness of the gentlemen in question, it will be superfluous to say anything respecting the peculiar effects of a golden soporific, or to remind you of our homely proverb which tells us, “there are none so blind as those who *will not* see.”

I quit this ungrateful subject, which is disgraceful to the age in which we live, but with the conviction that I even now perceive the dawn of better times, when, restrained by the more advanced intelligence of the community, and by the existence of a more elevated standard of morality, the proprietors and editors of the talented and respectable por-

tion of the public press will cease to receive the indecent advertisements of empirics, and to pollute their pages and prostitute their pens in such disgraceful service.

Gentlemen,—When I first began to arrange the materials for this lecture, I intended to furnish you with a sketch of the progress of ophthalmic science; but, as I traced it onwards, I found them so abundant that it was quite impossible to condense them, with any useful effect, into the necessary space. I therefore determined to occupy your time by pointing out the importance of paying a due share of attention to the diseases of the eye—by explaining the best mode of studying them—by displaying the ill effects of urging this department of practice into the hands of mere oculists—and finally, by drawing your attention to those works which appear to me best calculated to assist you in the prosecution of your ophthalmic studies.*

I have now a few words to say to you relative to the books it may be desirable to consult respecting the anatomy, physiology, and diseases of the eye.

The works on the anatomy of the eye which appear to me best adapted to the wants of the students attending these lectures, are those of TRAVERS,† JACOB,‡ DALRYMPLE,§ and LAWRENCE;|| and, as I know you will desire to learn my opinion respecting them, I shall give you a condensed

* Those students who are disposed to study very minutely the history of ophthalmology, may advantageously consult the following works:—HALLER's *Bibliotheca Chirurgica*; RICHTER's *Bibliotheca Chirurgica*; BEER's *Bibliotheca Ophthalmica*; WALLROTH's *Syntagma de Ophthalmologia veterum*; and LANGENBECK's *Bibliotheca Chirurgica*. If the perusal of these works does not supply sufficiently minute and complete information, it will, at least, unfold sources of knowledge adequate to satisfy the mind of the most diligent inquirer.

† *A Synopsis of the Diseases of the Eye*, London, 1824. Introductory Chapter.

‡ *The Cyclopadia of Anatomy and Physiology*. Article, "Eye."

§ *The Anatomy of the Human Eye*. London, 1834.

|| *A Treatise on the Diseases of the Eye*. London, 1833. Introduction.

account of their respective merits ; solely, I repeat, with a view to your instruction.

The account of the eye furnished by Mr. TRAVERS is, for the most part, correct, but it contains some statements which we now know to be inaccurate ; it is certainly not so exact as that supplied by subsequent writers, and is, moreover, mixed up with speculations which, however ingenious, are out of place, at least as far as the object now in view is concerned.

Dr. JACOB's description of the structure of the eye is very minute and elaborate ; in fact, his account of the anatomy of the eye is one of the best extant, but some of its excellences for the advanced reader are, in fact, objections as respects junior students, for the latter of whom it is not, for the following reasons, so well suited as that of Mr. LAWRENCE :—

1. The author has not sufficiently confined himself to his subject. 2. He has assumed as fixed and positive, some points of anatomy which are still *sub judice*. 3. His style is, moreover, redundant and discursive, which tends, at the same time, to obscure the author's meaning and weary the reader's patience.

I have some objections to urge against the valuable work of Mr. DALRYMPLE. The book is (I am now referring to its adaptation to junior students) needlessly enlarged by the introduction of many long quotations from the works of men who have ceased to be authorities on matters relative to the anatomy of the eye, and the reader is too often left to determine for himself amidst much conflicting testimony, the exact value due to the opinions of each writer—to determine, from the mass of evidence introduced, the real state of knowledge. You want, instead of this, to have placed before you in explicit language and in a condensed form, the present state of our knowledge respecting the anatomy of the eye ; and I am really unacquainted with any writer who has accomplished

this object better than Mr. LAWRENCE. When I first examined his book I was inclined to smile, on perceiving that he had ventured to give an account of the anatomy of the eye and its appendages in a few pages, but, on examining these pages with due attention, I found that he had really done this in a perfectly satisfactory manner. His details are full and accurate—his style clear and compact. He is brief, not by omitting anything it is important the student should know, but by an extraordinary talent for condensation; so that whilst on the one hand there is neither diffusion to weary nor irrelevancy to perplex, there is, on the other hand, neither obscurity to be explained nor omission to be supplied; and I feel justified in saying that the ophthalmic student can possess himself of no better guide to the anatomy of the organ of vision than that constituting a portion of the introduction to Mr. LAWRENCE's work on diseases of the eye.

After a time you may consult the works of ZINN* and SOEEMERRING.† These two great publications are almost entirely confined to an anatomical account, and a delineation of the eye and its appendages, and for minuteness, fulness, and accuracy of description, and beauty and fidelity of pictorial representation, have never been surpassed. As mere specimens of art the engravings of SOEEMERRING are truly wonderful, and it has rarely happened that the labour and skill of the anatomist have been so successfully supported by the perseverance and ingenuity of the artist. To these works I may add the sixteenth book of HALLER,‡ which contains an account of the anatomy of the eye, distinguished not less by the accuracy than the extent of its information, and constituting a proud monument of human labour and research—

* *Descriptio Anatomica Oculi Humani Iconibus Illustrata.* Gottingen, 1755.

† *Icones Oculi Humani.* Francfort, 1804.

‡ *Elementa Physiologiæ Corporis Humani. Tomus Quintus.* Lausanne, 1763.

the labour of an original mind and the research of a discriminating judgment. The tiny efforts of some boastful modern writers stand in amusing contrast to the gigantic labours of this modest and extraordinary man, whose life presented in delightful union, the sublimity of virtue and the majesty of intellect.

The work of PORTERFIELD,* the papers by PETIT,† various articles in that excellent work *Scriptores Ophthalmologici Minores*,‡ a paper by Dr. JACOB, in the twelfth volume of the *Medico-Chirurgical Transactions*, by Dr. PROUT, in the thirtieth volume of the *London Medical and Physical Journal*, and by WHARTON JONES, in the twenty-third volume of the *Medical Gazette*, are also entitled to special attention.

The physiology of the eye is treated of in systematic works on Physiology. I may, however, refer you, in addition to the works of HALLER§ and PORTERFIELD,|| to those of TRAVERS¶ and LAWRENCE,** and also to various articles in the *Cyclopædia of Anatomy and Physiology*.†† A part of the physiology of the eye relates to the science of optics, and you may wish to prosecute your researches on this point to an extent by no means indispensable to the practical surgeon. Should this be the case, I shall be very happy to assist your studies as far as I am able; but it would be manifestly out of place to enter at all fully upon this delightful and interesting subject on the present occasion.

I shall now, for a few moments, address to you a few

* *A Treatise on the Eye*, &c. Edinburgh, 1769.

† *Mémoires de l'Académie Royale des Sciences*, 1723, 1725, 1726.

‡ Leipzig, 1826. Edited by Justus Radius.

§ *Elementa Physiologie Corporis Humani*. Lausanne, 1763. Tomus Quintus.

|| *A Treatise on the Eye; the Manner and Phenomena of Vision*. Edinburgh, 1769.

¶ *A Synopsis of the Diseases of the Eye, with a Sketch of the Physiology of that Organ*. London, 1824.

** *A Treatise on the Diseases of the Eye*. London, 1833.

†† See articles "Eye," "Vision," and "Organ of Vision."

observations on the works of various writers on diseases of the eye.

Here are the works of WARE,* WENZEL,† and DEMOURS,‡ and I may mention to you that they are all open to the same objection—they are not only behind the present state of science, but are composed by men who practised almost, if not entirely, as oculists. Hence, as I have already explained, we can feel but little confidence in their statements respecting the causes and treatment of many ophthalmic maladies depending on particular states of health, or conditions of the constitution, however accurately they may have described all their visible external symptoms.

The work of the illustrious SCARPA,§ though formerly in great repute, is not adapted to junior students. He is not only behind the knowledge of the present day, but his system of therapeutics is essentially defective. In fact, he has laid an undue stress upon local remedies; many of which are, moreover, not only inefficient but extremely disgusting. However, he suggested many important improvements in the treatment of diseases of the eye, which will be noticed in the course of the lectures I am now engaged in delivering.

The work of WELLER,|| like those of BENEDICT,¶ SAUNDERS,** VETCH,†† and EDMONSTON,‡‡ and the more recent

* *Chirurgical Observations relative to the Eye.* London, 1798.

† *Manuel de l'Oculiste.* Paris, 1808.

‡ *Traité des Maladies des Yeux.* Paris, 1818.

§ *Practical Observations on the Principal Diseases of the Eyes.* With Notes. By JAMES BRIGGS. London, 1806. Or *Translation.* By J. B. F. Lévêillé. Paris, 1807.

|| *A Manual of the Diseases of the Human Eye.* By DR. CHARLES H. WELLER. Translated by GEORGE C. MONTEATH, M.D. Glasgow, 1821.

¶ *De Morbis Oculi Humani Inflammatorii.* Leipsic, 1811.

** *A Treatise on some Practical Points relating to the Diseases of the Eye.* London, 1816.

†† *A Practical Treatise on the Diseases of the Eye.* London, 1820.

‡‡ *A Treatise on the Varieties and Consequences of Ophthalmia.* London, 1806.

one of SICHEL,* are incomplete as systems of ophthalmic surgery; but may, nevertheless, be referred to by the more advanced student on particular sections of our subject.

On the operative surgery of the eye you cannot do better than consult the work of Mr. GUTHRIE.† The information in this book is not only very elaborate, but extremely accurate; its value is, moreover, increased by the addition of many excellent engravings.

Mr. WARDROP's scientific work was first published in the year 1808,‡ and it is by far the best work of the kind which has yet appeared. It has the merit of having accomplished for the pathology of the eye everything the immortal work of ANDRAL has effected for general pathology, and you are as yet scarcely in a condition to appreciate the extent of your obligations to its talented author. In addition to its other merits, it is adorned with a series of beautiful engravings, which illustrate, in a very satisfactory manner, many of the morbid changes to which the organ of vision is liable. These engravings are not, indeed, so numerous as those connected with the work of DEMOURS, but they are far more accurate. It cannot be denied, however, that the subject is still incomplete, and that its further prosecution and more complete elucidation will abundantly repay, in reputation to the individual and usefulness to the profession, any labour the task may require.

Here is a work which has had a most extensive circulation—which is known and quoted in every country where medical science is cultivated.§ Were I to characterise it in respect to the circumstances under which it first appeared,

* *Traité de l'Ophthalmia*, &c. Paris, 1837.

† *Lectures on the Operative Surgery of the Eye*. London, 1830.

‡ *The Morbid Anatomy of the Human Eye*. London.

§ *A Synopsis of the Diseases of the Eye, and their Treatment*. By BENJAMIN TRAVERS, F.R.S. London, 1824.

I should adopt a tone of approval which might almost seem extravagant; but if I am to give an opinion of it as a guide for the students attending these lectures, I feel compelled to say, there are open to you more appropriate sources of information. It has, however, very deservedly the credit (and this must be a source of immense satisfaction to its excellent author) of having essentially contributed to diffuse among the profession an acquaintance with diseases of the eye.

The latest work on diseases of the eye is written by Mr. MORGAN, one of the surgeons to Guy's Hospital;* and I must confess it has disappointed the expectations I had formed of it prior to its publication. The known ability of its author, his ample means of observation, the attention he is reputed to have paid to the subject, and, I may add, the important public position he occupies, led me to expect, not merely a respectable work, but one which, in right of its merits, should take its place by the side of that written by Mr. LAWRENCE,—and higher praise than this cannot be accorded to any existing volume connected with ophthalmic pathology. The descriptions of disease as given in Mr. MORGAN's book are always meagre, but *not* always correct; and the treatment recommended for their relief is by no means fully stated, neither is it in by any means every instance appropriate. The plates which accompany the work constitute its chief value.

The recent works of M. STOEBER,† ROGNETTA,‡ and VELPEAU,§ which have been so favourably reviewed in the continental journals, appear to me open to all the objections now urged against that of Mr. MORGAN, but in a much less

* *Lectures on Diseases of the Eye.* London, 1839.

† *Manuel Pratique de l'Ophthalmologie.* Bruxelles, 1837.

‡ *Cours de l'Ophthalmologie, ou Traité Complet des Maladies de l'Œil.* Paris, 1839.

§ *Manuel Pratique des Maladies des Yeux.* Paris, 1840. Edited by G. JEAN-SELME.

degree. These are all, however, works of merit ; and, if you were forming a collection of books on diseases of the eye, they ought to constitute a part of it. But it is my present object to recommend to you only one or two works, which are, at the same time, systems of ophthalmic surgery and the best guides to your ophthalmic studies.

Here are the works of LAWRENCE,* MACKENZIE,† and COOPER,‡ and they are indeed real treasures. The work of Mr. LAWRENCE is unquestionably the best of the three ; his intimate acquaintance with every department of medical investigation, combined with his knowledge of foreign medical literature, give him advantages of no ordinary character, and no surgeon now living in any country has made a better use of them. His descriptions of disease are models of lucid accuracy and condensed completeness—neither obscured by extreme brevity, nor enfeebled by needless diffusion ; and it appears to me that they enable the student, as far as this can be accomplished, to dispense with models, engravings, and all similar helps to written descriptions of diseased appearances. I do not, of course, intend to disparage the comprehensive work of Mr. MACKENZIE, for its value is undoubted, and its merit too well established to be affected by my praise or censure, all I intend is, to state my honest conviction, after having attentively considered and compared the merits of the two, that the work of Mr. LAWRENCE is much the best ; furnishing not only the better guide to gentlemen engaged in practice, but also the better help to the attainment of ophthalmic knowledge by the student.§ In fact, it is difficult to do justice to this book,

* *A Treatise on the Diseases of the Eye.* London, 1833.

† *A Practical Treatise on the Diseases of the Eye.* London, 1830.

‡ *A Dictionary of Practical Surgery.* London, 1838. See “ Amaurosis,” “ Cataract,” “ Ophthalmia,” &c.

§ Since the present Lecture was delivered, I find that Messrs. LONGMANS have announced a third edition of Mr. MACKENZIE’S work on the diseases of the

which scarcely more abounds in the positive evidences of profound learning and extensive research, than in the riches of individual experience. The articles on the eye in the last edition of COOPER's *Surgical Dictionary* are very correct and elaborate. They are, however, scarcely so well adapted to the wants of junior students as the works of LAWRENCE and MACKENZIE, inasmuch as their author, after having placed a variety of opinions before his reader, has sometimes left him to balance and determine their respective value. If, however, he occasionally leaves the student in doubt, he never leads him into error; and, it must be admitted, that the opinions of the authors brought forward are selected with great care and judgment; and that every material point of practical interest and importance has received the most attentive consideration.*

eye. This is as it should be, and indicates, on the part of the profession, an increasing desire to cultivate a knowledge of ophthalmic diseases. This circumstance does not, however, in any degree weaken my belief in the accuracy of the remarks then made.

* I cannot suffer the present opportunity to pass without offering my grateful thanks to the distinguished author of this truly invaluable work, for the information I have derived from his learned labours. In the course of conversation with various medical friends, I have sometimes heard this extraordinary production spoken of as though it were a mere compilation. This is certainly an error, involving great injustice to a man to whom surgical science is largely indebted. It appears to me that its originality is not inconsiderable, but that it is in a great measure concealed by its learning—by the comprehensiveness of its plan, the extent of its matter, and the elaborate fulness of its details. If, on questions of surgical practice, other men's opinions are given—dove-tailed and interwoven, as it were, in almost countless numbers in every page—MR. COOPER's opinions are also supplied. In fact, had not SAMUEL COOPER been one of the most *honest* and *candid*, as he is certainly the most *learned*, he would have been considered one of the most *original* surgical writers of modern times. Perhaps, indeed, I am wrong in supposing that he is not generally so considered at the present period. Be this as it may, I am convinced that, in after times, the historian, engaged in recording the services of the former benefactors of surgical science, will deliver such an opinion; and, estimating the professional zeal and devotedness of the author by the value and magnitude of his labours, exclaim, with involuntary admiration, *Non sibi sed aliis vivit.*

I may as well mention that I have also published a work on the subject of ophthalmic maladies,* in which I have endeavoured to furnish to the student and practitioner a clear description of disease, with a pretty copious account of its appropriate treatment. The size, and consequent expensiveness, of my *Treatise* has much interfered with the amount of its circulation abroad, and this circumstance has furnished an opportunity of plagiarism to an amusing extent. So that, in reading some foreign journals, I have on more than one occasion, "done into English" what has appeared to me an entire *Section* of my own work. In fact, the *coincidence* of expression, arrangement, and view of the subject, has been *quite remarkable*. These little mistakes we shall presently correct.

I shall say very little respecting the articles on diseases of the eye in COPLAND'S *Medical Dictionary*†, and the *Cyclopædia of Surgery*,‡ as but few of them are at present published. As far, however, as they have hitherto gone they promise to maintain the character of the well-informed and, for the most part, distinguished individuals engaged in their production.

In addition to the preceding works the more advanced students may consult, with great advantage, those sections of the surgical works of WARNER,§ B. BELL,|| POTT,¶

* *A Treatise on the Diseases of the Eye, and its Appendages*. London, 1835.

† London, 1833. See "Amaurosis," "Ophthalmia," &c.

‡ Edited by W. B. Costello, M.D. London, 1837.—See also the articles relative to the Eye in the *Cyclopedia of Practical Medicine*. (London, 1833), the *American Cyclopædia of Practical Medicine and Surgery*, (Philadelphia, 1835,) the *Dictionnaire de Médecine et de Chirurgie Pratiques*, (Paris, 1834), and the Papers of JACOBSON, RICHTER, WALTHER, SCHMIDT, BAERENS, JAEGER, and HOSP, in the *Scriptores Ophthalmologici Minores*, (Leipsic, 1826).

§ *Cases in Surgery*. London, 1784.

|| *A System of Surgery*. Edinburgh, 1801, vol. 4.

¶ *The Surgical Works of PERCIVAL POTT*, F.R.S., London, 1790. EARLE'S Edition.

SHARP,* HEY,† DESAULT,‡ PETIT,§ LARRY,|| and DUPUYTREN,¶ and various articles published in the German, French, and American journals, by LANGENBECK, GRAEFE, RUST, AMMON, WALTHER, MUELLER, GONDRET, BONEFONS, MAGENDIE, SERRES, CUNIER, JEANSELME, LISFRANC, CARON, CAFFE, BOURJOT, and HAYS, which have special reference to interesting points of ophthalmic practice.** To these may be added various papers by BARTON,†† WHARTON JONES,‡‡ TYRRELL,§§ and HUNT.||||

The works of BEER,¶¶ JUENGKEN,*** and ROSAS,††† are entitled to the most respectful attention; but, as few of my auditors are presumed to read the German language at all fluently, I shall content myself with referring them to those English works, where the opinions of these distinguished individuals may be found. The opinions of BEER are embodied in MONTEATH'S translation of WELLER,‡‡‡ and those of ROSAS and JUENGKEN are frequently quoted in the treatises of LAWRENCE, MACKENZIE, and MIDDLEMORE.

* *A Treatise on the Operations of Surgery.* London, 1769.

† *Practical Observations in Surgery.* London, 1810.

‡ *Œuvres Chirurgicales.* Paris, 1801.

§ *Traité des Maladies Chirurgicales.* Paris, 1790.

|| *Mémoires de Chirurgie militaire.* Paris, 1812.

¶ *Leçons orales de clinique Chirurgicale faites à l'Hôtel-Dieu.* Paris, 1832, et 1834.

*** Many of these have been re-published in the earlier numbers of the *Encyclographie des Sciences Médicales.*

†† *London Medical Gazette*, vol. 5.

‡‡ *London Medical Gazette*, vol, 21.

§§ *Medico-Chirurgical Transactions*, vol. 21.

|||| *North of England Medical and Surgical Journal*, vol. 1.

¶¶ *Lehre von den Augenkrankheiten, als Leitfaden zu seiner öffentlichen Vorlesungen.*

*** *Lehre von den Augenkrankheiten.*

††† *Handbuch der Theoretischen und Praktischen Augen-heilkunde.*

‡‡‡ A much enlarged and improved edition of WELLER'S work was published at Berlin, in 1826. This, as far as I am aware, has not been translated.

Mr. COOPER, in his invaluable *Surgical Dictionary*, has also stated their opinions pretty fully on nearly every material point of ophthalmic practice.

Let me, however, before I conclude, beg of you to avoid the multitude of little trumpery ophthalmic manuals which have recently issued from the press, for it is worse than a waste of time to read them. I do not complain of them because the information they contain is meagre, but because it is inaccurate—not because it is not sufficiently copious fully to instruct, but because it is so badly selected as seriously to mislead. You may tell me that some of them have passed through nine or ten *editions*, whilst the work of Mr. LAWRENCE, which I have felt it my duty so strongly to recommend, has not reached a second. You must remember there is a great difference between a *good* book and what the publishers call a *selling* book; and you must also bear in mind that some of our large medical publishers can “urge the sale” of any trash. It is true the books so designated contain the essence of early decay, but still, they live long enough to answer their projector’s purpose and to encourage a new speculation of a like nature. So that this matter of “many editions,” though an apparently accurate test of the quality of a book is really a very uncertain guide to its actual value.

And now, Gentlemen, I have given you but a very meagre account of an exceedingly small portion of works connected with that department of medical science, it has become my duty to teach; in proof of which I may refer you to the *Litteratura Medica Digesta sive Repertorium Medicinæ Practicæ Chirurgicæ atque rei Obstetricæ*, of the indefatigable PLOUQUET; to the *Elementa Physiologicæ*, and the *Bibliotheca Chirurgica* of the illustrious HALLER; the *Chirurgische Bibliothek* of RICHTER; and LANGENBECK’S *Neue Chirurgische Bibliothek*. The *Manual of Select Medical Biblio-*

graphy by Dr. FORBES; the *Introduction to Medical Literature* by the late Dr. YOUNG; and the list of references to works appended to the Ophthalmic articles in COOPER's *Surgical Dictionary*, COPLAND's *Medical Dictionary*, the *American Cyclopædia of Practical Medicine and Surgery*, and the *Dictionnaire de Médecine et de Chirurgie*, may be consulted for this purpose by those to whom the large and valuable works of HALLER, PLOUCQUET, RICHTER, and LANGENBECK, are inaccessible.

I have thus discharged, to the best of my ability, and as far as the limits of a lecture will permit, the somewhat ungracious task in which, in justice to you, I have felt myself bound to engage; and, if my honest and, as I think, temperate criticism should give offence to any one, I can only say that I have studied to act with fairness and impartiality, and that none of the opinions now expressed have been advanced except after the most deliberate consideration.

I have now only to explain the arrangement I intend to adopt in the delivery of my lectures. I shall first treat of the diseases of the individual membranes of the eye,—I shall then discuss the morbid affections of the humours of the eye,—I shall next lecture on the affections of the whole eyeball,—then of those of the cavity of the orbit,—and lastly, of the appendages of the eye—dividing them, as is usual, into the ocular and palpebral appendages. The anatomy and physiology of each part will be prefixed to the description of its diseases.

